AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A boron phosphide-based semiconductor light-emitting device comprising:

a substrate of silicon single crystal;

a first cubic boron phosphide-based semiconductor layer that is provided on a surface of the substrate and contains twins;

a light-emitting layer that is composed of a hexagonal Group III nitride semiconductor and provided on the first cubic boron phosphide-based semiconductor layer; and

a second cubic boron phosphide-based semiconductor layer that is provided on the light-emitting layer, contains twins and has a conduction type different from that of the first cubic boron phosphide-based semiconductor layer.

2. (original): A boron phosphide-based semiconductor light-emitting device according to claim 1, wherein the substrate is a (111)-silicon single-crystal substrate having a (111) crystal plane, and the first cubic boron phosphide-based semiconductor layer is provided on the (111) crystal plane.

3. (original): A boron phosphide-based semiconductor light-emitting device according to claim 2, wherein the first cubic boron phosphide-based semiconductor layer has a [110] direction aligned with a [110] direction of the silicon single crystal.

4. (currently amended): A boron phosphide-based semiconductor light-emitting device according to claim 2~~ or claim 3~~, wherein the first cubic boron phosphide-based semiconductor layer contains (111) twins having a (111) crystal plane serving as a twinning plane in a junction area in contact with the (111) crystal plane of the (111)-silicon single-crystal substrate.

5. (currently amended): A boron phosphide-based semiconductor light-emitting device according to claim 1~~any one of claims 1 to 4~~, wherein, the first cubic boron phosphide-based semiconductor layer is an undoped layer to which no impurity element has been intentionally added.

6. (currently amended): A boron phosphide-based semiconductor light-emitting device according to claim 1~~any one of claims 1 to 5~~, wherein the light-emitting layer has a [-2110] direction aligned with a [110] direction of the first cubic boron phosphide-based semiconductor layer and has a (0001) crystal plane serving as a front surface.

7. (currently amended): A boron phosphide-based semiconductor light-emitting device according to claim 1~~any one of claims 1 to 6~~, wherein the light-emitting layer has a profile of phosphorus atom concentration that gradually decreases from a bottom thereof in a thickness direction.

8. (original): A boron phosphide-based semiconductor light-emitting device according to claim 6, wherein the second cubic boron phosphide-based semiconductor layer has a [110] direction aligned with the [-2110] direction of the light-emitting layer.

9. (currently amended): A boron phosphide-based semiconductor light-emitting device according to claim 6~~any one of claims 6 to 8~~, wherein the second cubic boron phosphide-based semiconductor layer contains (111) twins having a (111) crystal plane serving as a twinning plane in a junction area in contact with the (0001) crystal plane of the light-emitting layer.

10. (currently amended): A boron phosphide-based semiconductor light-emitting device according to claim 6~~any one of claims 6 to 9~~, wherein the second cubic boron phosphide-based semiconductor layer is an undoped layer to which no impurity element has been intentionally added.

11. (currently amended): A boron phosphide-based semiconductor light-emitting device according to claim 1~~any one of claims 1 to 10~~, wherein the first and second cubic boron phosphide-based semiconductor layers exhibit a bandgap at room temperature of 2.8 eV or more.

12. (currently amended): A boron phosphide-based semiconductor light-emitting device according to claim 1~~any one of claims 1 to 11~~, wherein the first and second cubic boron phosphide-based semiconductor layers are provided so as to serve as cladding layers.

13. (currently amended): A boron phosphide-based semiconductor light-emitting device according to claim 1~~any one of claims 1 to 11~~, wherein the second cubic boron phosphide-based semiconductor layer is provided so as to serve as a window layer which allows passage of light emitted from the light-emitting layer to the outside.

14. (currently amended): A boron phosphide-based semiconductor light-emitting device according to claim 1~~any one of claims 1 to 11~~, wherein the second cubic boron phosphide-based semiconductor layer is provided so as to serve as a current-diffusion layer which allows device operation current to diffuse.

15. (currently amended): A boron phosphide-based semiconductor light-emitting device according to claim 1~~any one of claims 1 to 11~~, wherein the second cubic boron

phosphide-based semiconductor layer is provided so as to serve as a contact layer for forming an electrode.